

## Special Issue

# Artificial Intelligence for Fault Detection and Diagnosis

### Message from the Guest Editors

Fault detection and diagnosis (FDD) is very important in manufacturing and mechatronic systems to reduce costs and improve productivity. Traditionally, human beings have manually checked the states of the machines and detected their faults, which is time-consuming and expensive. Many AI algorithms have been applied to FDD, including data processing, data mining, feature analysis, and classification. In recent years, deep neural networks have shown potential in FDD. Other promising methods include evolutionary computation techniques and fuzzy systems. However, the potential of AI has not been comprehensively investigated in FDD. This Special Issue aims to investigate the use of different AI algorithms involving machine learning, deep learning, and computational intelligence techniques in applications to FDD of different machines. We would like to invite researchers to submit papers on the topic, from all viewpoints, including theoretical issues, algorithms, systems, and industrial applications.

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### Guest Editors

Dr. Ying Bi

Prof. Dr. Mengjie Zhang

Prof. Dr. Bing Xue

Dr. Bo Peng

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### Deadline for manuscript submissions

closed (31 December 2023)



## Algorithms

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## About the Journal

### Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

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### Editor-in-Chief

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